

**REMARKS**

Applicant's attorney notes with appreciation the telephonic interview granted by the Examiner and conducted on January 22, 2009. Accordingly, claim 1 has been amended to recite with greater clarity that the paint residue is a viscous liquid at ambient temperature and being substantially free of cross-linking on its own, that the paint waste stream is resultant from spray equipment cleaning with wash solvent and substantially free of large amounts of gelled paint, and that the paint residue is combined with and reacts to a hardener to form a usable coating for application on a substrate. Claim 10 has been accordingly canceled. Support for the amendment is found, *inter alia*, at lines 9-14 on page 1, at lines 13-14 and lines 24-26 on page 3, and at line 27 on page 3 to line 1 on page 4 of the specification and claims originally filed. It is submitted that no new matter is introduced by way of this amendment.

This application has been carefully reviewed in light of the final Office Action dated September 18, 2008 and the Advisory Action dated December 22, 2008. At the time of the final Office Action, claims 1-14 were rejected. Applicant respectfully requests reconsideration of the application in light of the instant claim amendments and in view of the following remarks.

Claims 1-3 and 11 stand rejected under 35 U.S.C. 102(b) over Hovestadt (U.S. Patent 5,453,460; hereinafter *Hovestadt*). For at the reasons set forth below, Applicant respectfully traverses the rejections.

The independent claim 1 in current form recites a coating comprising a paint residue extracted from a paint waste stream, the paint residue being a viscous liquid at ambient temperature and being substantially free of cross-linking on its own, the paint waste stream being resultant from spray equipment cleaning with wash solvent and being substantially free of large amounts of gelled paint, wherein the residue is combined with and reacts to a hardener to form a usable coating for application on a substrate.

In direct contrast, the overspray of *Hovestadt* is cross-linkable on its own, for example, without the need for a hardener to be supplied in order for the cross-linking reaction

to take place. Please see, for instance, col. 1, lines 10-15 of *Hovestadt*. *Hovestadt's* overspray contains two-component polyurethane coating compositions readily capable of forming a cross-linked coating. *Hovestadt's* overspray is an otherwise active paint composition capable of self cross-linking to form a useable coating but for the fact that it fails to reach the target substrate to be painted. *Id.* In fact, the inherent features of self cross-linkability is exactly the reason as to why *Hovestadt* uses component masking agent such as isocyanate-reactive compounds to effectively deter the self cross-linking reactions of the overspray such that the half-life of the overspray may be extended for later use.

The self cross-linkability of the *Hovestadt's* overspray is further evidenced as the Examiner admits that the overspray of *Hovestadt* would be a *solid* if it was subject to heat-assisted distillation due to its readily self cross-linkability (page 6 of the final Office Action dated September 18, 2008), as opposed to the paint residue of claim 1 remaining as a viscous *liquid* upon such distillation based extraction process.

It should be noted that the self cross-linkability of *Hovestadt* overspray *can be avoided* with the addition of isocyanate-reactive compounds does not negate the fact that the overspray of *Hovestadt* is *capable of* cross-linking on its own without any additives. Therefore, the paint residue of claim 1 is readily distinguished from the *Hovestadt* overspray.

As such, *Hovestadt* fails to teach or suggest the at least aforementioned claim limitation recited in the independent claim 1. The independent claim 1 and all the claims dependent therefrom are submitted to be patentable over *Hovestadt*. Reconsideration and withdrawal of these rejections to claims 1-3 and 11 is respectfully solicited.

Claims 2-3 and 11 are believed to be allowable further due to the additional features they recite. Separate and individual consideration is respectfully requested.

For example, claim 11 recites a coating of claim 1, wherein the paint residue is diluted prior to being combined with the hardener for application on the substrate.

In direct contrast, the overspray of *Hovestadt* is treated with water for the subsequent masking reactions using, for example, the externally supplied isocyanate reactive compounds to mask the polyisocyanate moieties present in the overspray (Abstract). Examples of the isocyanate reactive reagents illustratively include polyhydroxyl compounds (col. 3, lines 21-24). In the event the isocyanate reactive reagents are insoluble in water, various emulsifiers may be added to render them water soluble. Therefore, the diluting step of *Hovestadt* results in an aqueous mixture wherein isocyanate groups within the overspray are protected, the shelf life thereof is extended and the modified overspray may be reused again (col. 6, lines 19-26). *Hovestadt* does not teach or suggest the claimed feature of diluting the paint residue prior to its being combined with a hardener for application on the substrate, since all words in a claim must be considered in judging the patentability of that claim against the prior art.<sup>1</sup>

Therefore the aforementioned limitation of claim 11 is further readily distinguished from the diluting step of *Hovestadt* at least on this separate and independent ground.

Claim 4 is rejected under 35 U.S.C. 103(a) over *Hovestadt* and *Moriarty* et al. (U.S. Patent 6,692,670; hereinafter *Moriarty*). Applicant traverses this rejection because the proposed combination does not teach or suggest claim 4. Claim 4 depends from the independent claim 1. As set forth above, *Hovestadt* does not teach or suggest the paint residue extracted from a paint waste stream wherein the paint residue is a viscous liquid at ambient temperature and is substantially free of cross-linking on its own. The Examiner has not set forth how *Moriarty* would cure the defective teachings of *Hovestadt*. For at least these reasons, claim 4 which depends from claim 1 is patentable over the proposed combination of *Hovestadt* and *Moriarty*. Reconsideration and withdrawal of this rejection to claim 4 is solicited.

Claims 5-7 and 14 stand rejected under 35 U.S.C. 103(a) over *Hovestadt* in view of *Patzelt* et al. (U.S. Patent 5,766,370; hereinafter *Patzelt*). Applicant respectfully traverses this rejection for at least the reasons set forth below.

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In re *Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970).

Independent claim 5 in current form recites a process for producing a surface coating, comprising placing a paint waste stream in a still, the paint waste stream being resultant from spray equipment cleaning with wash solvent and being substantially free of large amounts of gelled paint, thereafter operating said still and separating wash solvent from paint residue, thereafter extracting paint residue from said still, the paint residue as extracted being a viscous liquid at ambient temperature and not substantially cross-linkable on its own, thereafter diluting paint residue to a workable viscosity, and thereafter combining said diluted residue with a hardening agent to form a useable surface coating.

One of the benefits of the subject invention is to *reuse* paint residues for the purpose of environmental protections, since paint residues are often hazardous to plants and animals (lines 14-22 on page 1 of the specification). In direct contrast, there has been a teaching away in the art from this claimed limitation.

For example, the Patent Office acknowledges that *Hovestadt* does not teach or suggest extracting the paint residue from the waste paint stream in a still. The Patent Office further acknowledges that *Patzelt* only teaches *discarding* a residue after a distillation process (page 4 of the final Office Action dated September 18, 2008) but not for the reuse of the residue. *Patzelt* clearly teaches that "the solid resin residue produced in the process of the present invention can be readily and easily handled for *disposal*" (col. 9, lines 29-32).

The law is clear that when references are combined, all the salient teachings of each reference must be contained in the proposed combination and one may not simply pick and choose isolated teachings from a reference to the exclusion of the references' salient teachings.<sup>2</sup> A reference must be viewed as a whole. Furthermore, the proposed combination cannot change the principle of operation of the prior art invention being modified.<sup>3</sup>

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<sup>2</sup> See, e.g., *In re Wesslau*, 147 USPQ 391, 393 (CCPA 1965)

<sup>3</sup> If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Please see also MPEP 2143.01.

As detailed herein, the salient features of *Patzelt* are to retain certain organic solvent with a distillation process while discarding the resultant residues (Col. 2, lines 55-59). Therefore, *Patzelt* teaches away from the claimed process of claim 1 wherein the residues are rather saved and retained.

Further, and contrary to the Examiner's contention, a person of ordinarily skill in the art would **not** have found it obvious to distill the overspray of *Hovestadt* using the distillation method of *Patzelt*, as an end product from the *Hovestadt* overspray upon distillation will be a permanently cross-linked solid and therefore non-reusable. Therefore, the proposed combination is impermissible for at least these reasons within the context of relevant portions of MPEP 2143.01 cited herein. Please see, for instance, footnote 3.

Further, the isocyanate-reactive compounds as added to the *Hovestadt* overspray upon heat-assisted distillation could possibly complicate the hardening reactions. The overspray of *Hovestadt* containing these compounds is a complicated mixture with the exact function thereof largely unknown. The active isocyanate groups are not removed but merely masked through the added compounds. The entire disclosure of *Hovestadt* does not seem to address what would happen if the compounds are supplied in excess and what the potential impact is with regards to the compounds reacted or un-reacted. Therefore, the fate of the these compounds under high temperature heat remains substantially unclear, particularly within the context of the *Hovestadt* overspray which, as stated above, is capable of self hardening.

Taken altogether, the proposed combination of *Hovestadt* and *Patzelt* is not only impermissible, as stated above, but also fails to teach or suggest at least the aforementioned limitation recited in claim 5. The independent claim 5 and all the claims dependent therefrom are submitted to be patentable over the proposed combination. Reconsideration and withdrawal of the rejections to claims 5-7 and 14 is solicited.

Claims 8-9 and 13 stand rejected under 35 U.S.C. 103(a) over *Hovestadt*, *Patzelt*, further in view of Applicant's admission of prior art. Applicant traverses this rejection because the proposed combination does not teach or suggest claims 8-9 and 13. Claims 8-9 and 13 each

depend from the independent claim 1. As set forth above, *Hovestadt* does not teach or suggest the paint residue extracted from a paint waste stream wherein the paint residue is a viscous liquid at ambient temperature and is substantially free of cross-linking on its own. *Patzelt* fails to cure the defective teachings of *Hovestadt*. Moreover, the Examiner has not set forth how the Applicant's admission would cure the defective teachings in view of the above. For at least these reasons, claims 8-9 and 11, each of which depends from claim 1, are patentable over the proposed combination. Reconsideration and withdrawal of these rejections to claims 8-9 and 13 is solicited.

Claim 12 stands rejected under 35 U.S.C. 103(a) over *Hovestadt*. Claim 12 is submitted to be patentable due to its dependency from the independent claim 1, which is now believed to be allowable, for at least the same reasons set forth above and further due to the additional features it recites. Separate and individual consideration is respectfully requested.

According to relevant provisions MPEP 706.02(j)<sup>4</sup> and with at least the reasons set forth below, Applicant respectfully submits that rejections to claim 12 stated on page 6 of the final Office Action are merely conclusory and have failed to set forth "articulated reasoning with some rational underpinning" and as such, fails to establish a *prima facie* case of obviousness.

In rejecting claim 12 under 35 U.S.C. § (a) over *Hovestadt*, the Examiner acknowledges that *Hovestadt* "does not teach the amount of thinning solvent used", yet maintains that claim 12 is nevertheless obvious since "the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render Applicant's claims patentable in

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<sup>4</sup> MPEP 706.02(j) in relevant part provides for a rejection to be made under 35 U.S.C. § 103, the examiner should set forth in the Office action: "the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line (numbers) where appropriate ... an explanation >as to< why >the claimed invention would have been obvious to< one of ordinary," and further provides that to support the obviousness rejections, the Examiner must show that "either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

the absence of unexpected results. *In re Aller*, 105 USPQ 2033, MPEP 2144.05. The amount of diluent can be adjusted to obtain a coating of the desired viscosity."

It is clear that other than simply repeating what is recited in claim 12, the rejection under 35 U.S.C. § 103(a) provides no articulated reasoning as to the obviousness, let alone factual findings in the *Hovestadt* that would support the rejection, as otherwise required in establishing a *prima facie* case of obviousness under MPEP 706.02(j) cited herein.

Moreover, *In re Aller* simply does not apply here.

The process of *In re Aller* which was performed at a temperature between 40°C and 80°C and an acid concentration between 25% and 70% was held to be *prima facie* obvious over a reference process which differed from the claims only in that the reference process was performed at a temperature of 100°C and an acid concentration of 10%.

Unlike the reference of *In re Aller* which in fact provided specific guidance as to the exact parameters (a reference temperature with a defined value of 100°C and a reference acid concentration with a defined value of 10%) identified in the claimed invention, the reference *Hovestadt* cited against the instant application is completely silent as to what an amount of thinning solvent could at all be used, as acknowledged by the Patent Office that "*Hovestadt* does not teach the amount of thinning solvent used" cited above. There is no recognition as to the effect of thinning of the paint residue on the consequential crosslinkable composition formation upon combination with hardener. Thinning as recited in claim 12 is directed to the paint residue of the present invention being a viscous liquid at ambient temperature, to soften the paint residue to the extent suitable for combining with and reacting to a hardener to form a usable coating. The thinning as recited in claim 12 as a result effective parameter for the above identified function is clearly not stated or recognized in the cited art, in particular, the solvent/water addition to the overspray in *Hovestadt* is merely to **wash down** the unused two-component polyurethane coating compositions for later use.

Taken together, Applicant respectfully submits that a *prima facie* case of obviousness has not been established in the subject rejections. Reconsideration and withdrawal of rejections to claim 12 under 35 U.S.C. 103(a) over *Hovestadt* is solicited.

Applicant does not acquiesce in the Examiner's characterizations of the art. For brevity and to advance prosecution, Applicant may not have addressed all characterizations of the art and reserves the right to do so in further prosecution of this or a subsequent application. The absence of an explicit response by Applicant to any of the Examiner's positions does not constitute a concession to the Examiner's positions. The fact that Applicant' comments have focused on particular arguments does not constitute a concession that there are not other arguments for patentability of the claims. Applicant submits that all of the dependent claims are patentable for at least the reasons given with respect to the claims on which they depend.

## **CONCLUSION**

Claims 1-9 and 11-14 are pending in the applications. Applicant has made a genuine effort to respond to each of the rejections that all formal and substantive requirements for patentability have been met and that this case is condition for allowance, which action is respectfully requested. If a telephone or video conference would help expedite allowance or resolve any additional questions, such a conference is invited at the Examiner's convenience.

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Reply to Office Action of September 18, 2008

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The Petition fee of \$245.00 is being charged to Deposit Account No. 02-3978 via electronic authorization submitted concurrently herewith. Please charge any fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978.

Respectfully submitted,

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